

**Amendments to the Claims:**

The following claims will replace all prior versions of the claims in this application (in the unlikely event that no claims follow herein, the previously pending claims will remain):

1. (Currently Amended) Polyethylene having:
  - a weight average molecular weight ~~in the range of 150,000-1,000,000~~ at least 250,000g/mol and below 700,000g/mol;
  - a number average molecular weight of at least 25,000 g/mol;
  - a polydispersity in the range of 1.3-10; and
  - wherein said polyethylene comprises co-monomer, said co-monomer being present in an amount up to 4wt%.
2. (Original) The polyethylene of claim 1, wherein said polyethylene has a wear coefficient below  $2.9 \cdot 10^{-4} \text{ mm}^3/\text{mN}$ .
3. (Original) Polyethylene having:
  - a melt viscosity of less than  $10^6 \text{ Pa.s}$ ; and
  - a wear coefficient below  $2.4 \cdot 10^{-4} \text{ mm}^3/\text{mN}$ .
4. (Cancelled).
5. (Previously Presented) The polyethylene according to claim 1, wherein said polyethylene has a weight average molecular weight below 500,000 g/mol.
6. (Cancelled).
7. (Cancelled).
8. (Previously Presented) The polyethylene according to claim 1, wherein said polyethylene has a co-monomer content in the range of 0.5 - 4 wt%.

9. (Previously Presented) The polyethylene according to claim 1, wherein said polyethylene has a wear coefficient below  $2.0 \cdot 10^{-4} \text{ mm}^3/\text{mN}$ .
10. (Previously Presented) The polyethylene according to claim 1, wherein said polyethylene has a polydispersity below 5.
11. (Previously Presented) The polyethylene according to claim 1, wherein said polyethylene has a polydispersity in the range of 2-4.
12. (Previously Presented) The polyethylene according to claim 1, wherein said polyethylene has a melting point of at least  $100^\circ \text{C}$ .
13. (Previously Presented) The polyethylene according to claim 1, wherein said polyethylene has a melt viscosity of less than  $5 \cdot 10^5 \text{ Pa.s}$ .
14. (Previously Presented) The polyethylene according to claim 1, wherein said polyethylene has a number average molecular weight of at least  $100,000 \text{ g/mol}$ .
15. (Previously Presented) A process comprising melt-processing the polyethylene according to claim 1.
16. (Original) The process of claim 15, wherein said process includes injection molding said polyethylene.
17. (Previously Presented) An article obtained by the process according to claim 15.
18. (Previously Presented) An article comprising the polyethylene according to claim 1.
19. (Cancelled).
20. (Cancelled).

21. (Previously Presented) The polyethylene according to claim 3, wherein said polyethylene has a weight average molecular weight below 700,000 g/mol.
22. (Previously Presented) The polyethylene according to claim 3, wherein said polyethylene has a weight average molecular weight below 500,000 g/mol.
23. (Previously Presented) The polyethylene according to claim 3, wherein said polyethylene has a weight average molecular weight of at least 250,000 g/mol.
24. (Previously Presented) The polyethylene of according to claim 3, wherein said polyethylene has a co-monomer content of less than 10 mol%.
25. (Previously Presented) The polyethylene according to claim 3, wherein said polyethylene has a co-monomer content in the range of 0.5-5 wt%.
26. (Previously Presented) The polyethylene according to claim 3, wherein said polyethylene has a wear coefficient below  $2.0 \cdot 10^{-4} \text{ mm}^3/\text{mN}$ .
27. (Previously Presented) The polyethylene according to claim 3, wherein said polyethylene has a polydispersity below 5.
28. (Previously Presented) The polyethylene according to claim 3, wherein said polyethylene has a polydispersity in the range of 2-4.
29. (Previously Presented) The polyethylene according to claim 3, wherein said polyethylene has a melting point of at least 100° C.
30. (Previously Presented) The polyethylene according to claim 3, wherein said polyethylene has a melt viscosity of less than  $5 \cdot 10^5 \text{ Pa.s}$ .
31. (Previously Presented) The polyethylene according to claim 3, wherein said polyethylene has a number average molecular weight of at least 100,000 g/mol.

32. (Previously Presented) A process comprising melt-processing the polyethylene according to claim 3.

33. (Previously Presented) The process of claim 32, wherein said process includes injection molding said polyethylene.

34. (Previously Presented) An article obtained by the process according to claim 32.

35. (Previously Presented) An article comprising the polyethylene according to claim 3.

36. (Previously Presented) The polyethylene of claim 1, wherein said polyethylene has a wear coefficient of less than  $3.2 \cdot 10^{-4} \text{ mm}^3/\text{mN}$ .